ABSTRACT OF THE DISCLOSURE

Transient suppression apparatus, which is coupleable in series with an electrical pathway into a potentially explosive environment for limiting current, voltage and energy thereto, comprises: an impedance element coupleable in series with the electrical pathway to conduct current to the potentially explosive environment; at least one first semiconductor element and at least one second semiconductor element coupled in series with the impedance element upstream and downstream of the impedance element, respectively. Both of the first and second semiconductor elements operative to impose a series resistance to the current of the electrical pathway governed by the voltage potential across the impedance element. A exemplary application for the transient suppression apparatus is a system for determining a quantity of fuel in a container which comprises: at least one sensor disposed at the container for sensing a quantity of fuel in the container; sensor excitation system coupled to each of the at least one sensor through an electrical pathway for providing an excitation signal thereto; and transient suppression apparatus as described directly above disposed in series with each electrical pathway for limiting current, voltage and energy to the container.